# 45-45-90 Triangle Practice Problems

1. Solve for *x*

100 ft

100 ft

*x*

Solution:

1. Solve for *x*

*x*

*20 m*

Solution:

1. Solve for *t*

*t*

2

*t*

Solution: *t* is one side of a square. The diagonal of that square is 2/2 = 1 unit long.

1. Solve for *t*

12 inches

*t*

Solution: *t* is the hypotenuse of a 45-45-90 triangle whose short side is 12/2 = 6 inches long.

1. Solve for *x*

9

9

Solution: Each square is 9/3=3 units to a side. The diagonal is

1. You’re laying 6” tiles and need to lay several along their diagonals to fill a 3’ space. How many tiles will you lay?

6”

6”

Solution: Each tile has a diagonal 6√2 inches long. . 4.25 tiles are needed.